

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|---|------------------|---------|------------------|
| L2 | 0 | "xoring ((P^(-1))(L))" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2005/08/16 05:52 |
| L3 | 0 | "xor ((P^(-1))(L))" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2005/08/16 05:52 |
| L4 | 15 | ("x\$1or\$3" or "x\$5or\$5" or "exclusive OR" or "exclusive oring") same (inverse near2 permutation) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/16 05:53 |
| S2 | 7 | (Des with "key scheduling") and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/22 16:32 |
| S3 | 11 | "661843" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/20 15:48 |
| S4 | 87 | sboxes | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/20 16:49 |
| S5 | 4 | ((sboxes with (chang\$3 with bit))) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/20 17:26 |
| S6 | 18 | ((des with permutation) and (des with expansion)) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 09:08 |
| S7 | 100 | 3-to-1 adj multiplexers | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 09:14 |

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| S8 | 530 | 2-to-1 adj multiplexers | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 09:21 |
| S9 | 401 | (2-to-1 adj multiplexers) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/22 14:08 |
| S10 | 397 | (2-to-1 adj multiplexers) and @ad < "20001013" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 09:15 |
| S11 | 93 | ((2-to-1 adj multiplexers) and @ad < "20001013") and "DES" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 09:18 |
| S12 | 8 | ((2-to-1 adj multiplexers) with "clock cycle") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 09:21 |
| S13 | 3 | ((((2-to-1 adj multiplexers) with "clock cycle")) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 13:02 |
| S14 | 235 | 380/42.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 13:03 |
| S15 | 184 | 380/42.ccls. and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 13:16 |
| S16 | 0 | (380/42.ccls. and @ad < "20001213") and ("expansion logic") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 13:25 |
| S17 | 20 | (380/42.ccls. and @ad < "20001213") and (expansion) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 13:28 |

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| S18 | 1 | (380/42.ccls. and @ad < "20001213") and (expansion with "size") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 13:32 |
| S19 | 5 | (380/42.ccls. and @ad < "20001213") and (expansion with bit) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 14:13 |
| S20 | 188 | "expansion logic" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 15:35 |
| S21 | 4 | "expansion logic" with (coupled with multiplex\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 15:36 |
| S22 | 8 | "expansion logic" with (multiplex\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 15:55 |
| S23 | 3 | "inverse permutation logic" with (multiplex\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 15:56 |
| S24 | 6 | "inverse permutation" with (multiplex\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 15:59 |
| S25 | 8 | "expansion logic" with multiplex\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 16:42 |
| S26 | 243 | (AES and permutation) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:17 |
| S27 | 11 | AES with permutation | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 16:46 |

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| S28 | 6 | "Advanced encryption standard" with permutation | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 16:48 |
| S29 | 21 | ("data encryption standard" with permutation) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:15 |
| S30 | 1480 | ((((high adj2 performance) or (high adj2 speed)) with DES) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:26 |
| S31 | 3 | (((((high adj2 performance) or (high adj2 speed)) with DES) and @ad < "20001213") and 380/42. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:22 |
| S32 | 4 | "expansion logic" with (coupled with multiplexer) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:23 |
| S33 | 2 | "expansion logic" with (coupled near multiplexer) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:25 |
| S34 | 4 | "expansion logic" near5 (coupled near3 multiplexer) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:25 |
| S35 | 8 | "expansion logic" with (multiplexer) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:25 |
| S36 | 2 | ("expansion logic" with (multiplexer)) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/21 17:26 |
| S37 | 7 | "permutation logic" with "expansion logic" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/22 10:17 |

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| S38 | 114 | "permutation" with "expansion" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/22 10:17 |
| S39 | 53 | ("permutation" with "expansion") and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/22 14:07 |
| S40 | 530 | "2-to-1 multiplexer" with "2-to-1 multiplexer" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/22 14:08 |
| S41 | 401 | ("2-to-1 multiplexer" with "2-to-1 multiplexer") and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/22 16:29 |
| S42 | 6 | ("Data encryption standard" same (determination and shift and propagation and consumption)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/09/23 11:13 |
| S58 | 3077 | (multiplexer or mux) with (two near2 output\$) and @ad <= "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 14:29 |
| S59 | 1 | (multiplexer or mux) with (two near2 output\$) and 380/42.ccls. and @ad <= "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 14:32 |
| S60 | 149 | (multiplexer or mux) with (two near2 output\$) with stor\$3 and @ad <= "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:35 |

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| S61 | 101 | ("4979832" "5231662" "5375169" "5787173" "6341299" "5778069" "5751811" "5365588" "6128387" "6167516" "5001753" "5425103" "5619576" "5781458" "6014445" "6278780" "6760440" "5317638" "6192129" "6075865" "6266417" "5297207" "6097815" "5204901" "5511123" "6237015" "4314097" "4932056" "5289397" "5727062" "5734721" "5793659" "6128764" "4275265" "5825886" "6125182" "6199086" "6269164" "6278783" "6505299" "6578061" "6785389" "6859818" "5619575" "5649014" "6028939" "4481513" "6829742" "4377863" "4394642").pn. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:36 |
| S62 | 0 | S61 and ("2.to.2") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:36 |
| S63 | 0 | S61 and ("2-to-2") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:36 |
| S64 | 0 | S61 and ("3-to-2") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:37 |
| S65 | 0 | S61 and ("three-to-two") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:37 |
| S66 | 0 | S61 and ("two-to-two") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:37 |
| S67 | 0 | S61 and ("two-to-one") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:37 |
| S68 | 0 | S61 and ("three-to-one") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:37 |

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| S69 | 0 | S61 and ("three to one") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:37 |
| S70 | 0 | S61 and ("three to two") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/22 15:37 |
| S71 | 15 | S61 and ("multiplexer") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/23 13:17 |
| S72 | 240 | 380/42.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/23 13:17 |
| S73 | 187 | 380/42.ccls. and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/23 13:17 |
| S74 | 28 | 380/42.ccls. and (multiplexer or mux) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/23 13:25 |
| S75 | 53 | (encryptor or encrypt\$3 or des or aes or "shift register" or scrambl\$3) with ((multiplexer or mux) near3 ((two or multiple or three) near2 output)) and @ad < "20001213" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/02/23 13:28 |
| S76 | 2 | "6320964".pn. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2005/08/15 10:30 |
| S77 | 16 | ("20010011251" "20020106078" "20020106080" "5469547" "5661807" "5671284" "6578150" "6760439").pn. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/15 10:31 |
| S78 | 7 | S77 and inverse | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/15 10:40 |

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| S80 | 0 | ep-5592553-\$.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/15 10:41 |
| S81 | 23 | "5592553" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/15 10:57 |
| S84 | 280 | inverse near2 permutation | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/15 10:58 |
| S89 | 3 | ("x\$1or\$3" or combin\$3 or "x\$5or\$5") near2 (inverse near2 permutation) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/15 11:01 |
| S90 | 7 | ("x\$1or\$3" or combin\$3 or "x\$5or\$5") near5 (inverse near2 permutation) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/15 11:15 |
| S91 | 9 | ("x\$1or\$3" or combin\$3 or "x\$5or\$5" or "exclusive OR") near5 (inverse near2 permutation) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/08/16 05:52 |